State of New Jersey
Department of Environmental Protection
Christine Todd Whitman
Governor
Robert C. Shinn, Jr.
Commissioner

CERTIFIED MAIL
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NO. Z 456 933 545

AUG 0 1 2000

Mr. Cristopher Anderson
Director Environmental Affairs
L.E. Carpenter & Company
Suite 36-5000
200 Public Square
Cleveland, OH 44114-2304

Dear Mr. Anderson:

Re: L.E. Carpenter Superfund Site
Wharton, Morris County
MW19/Hot Spot 1

The New Jersey Department of Environmental Protection (Department) and EPA have reviewed the letter entitled NJDEP Review of the MW19/Hot Spot 1 Area Remedial Investigation Report dated May 15, 2000 and have the following comments:

Department's Comments

1. It is unclear from Figure 1 what effect the sewer line has on the shallow ground water flow. The ground water flow regime is depicted without data. No ground water elevations are available past the property line on Ross Street or past MW-19-8. Also, seasonal ground water variations most likely will significantly alter the depicted flow regime. Accordingly, the ground water flow depicted in this figure is speculative/interpretive. Please explain how the flow map in this figure is representative of site conditions.

2. If the revised ground water contours provided in Figure 2 and the explanation that the sewer line intercepts ground water flow are in fact correct, a clean zone boundary for BTEX contamination has not been established. The ground water contours indicate MW-19-7 to be the most down-gradient monitor well, although BTEX levels exceed Ground Water Quality Criteria in this well.

3. The document states that the water sample collected from HP-4 confirms that no constituents of concern were detected in shallow ground water downgradient of MW-19-7. HP-4 was a hydropunch location sampled on only one occasion, over one year ago. The ground water sample from this temporary well location was for screening

purposes only and not to be used to confirm ground water quality from a migrating plume over one year later. Based on the elevated levels of toluene, ethylbenzene, and xylene at MW-19-7, it has been documented that these compounds exceed the Ground Water Quality Criteria. Therefore, horizontal delineation has not been established.

EPA's Comments

4. The letter states that delineation of the MW19/Hot Spot 1 Area is complete. This is based on the fact that ground water flow is heavily influenced by the presence of coarse permeable base material along an interceptor sewer transect on Ross Street, immediately downgradient of the site. To support this argument, ground water contours are presented in Figure 1. EPA has previously suggested that the presence of sewer lines could have an effect on local ground water flow, and may serve as a preferential pathway. While EPA is pleased that these concerns have been taken into consideration, the presentation and conclusions drawn are largely conjectural and not supported. The sharp turn in flow direction indicated on the figure is based on water levels in MW-19-8 and MW-19-7, which are the same, and so not definitive of the conclusion. Moreover, if the sewer is serving as a preferential pathway, this finding makes for a more complicated case than presented, and the logic is flawed, for two main reasons. First, the identification of the sewer route in itself is not sufficient data upon which to rule out that ground water (and contaminants) may still be flowing to the north, perhaps under the sewer line, and so follow the previously identified gradient, thus making MW-19-8 side gradient to flow.

   Second, if the sewer line is acting as a preferred pathway, as claimed, it is also a preferred pathway for contaminant transport as well. This has been overlooked, thus contaminants migrating along the pathway may not be apparent in MW-19-8. Therefore, EPA reaffirms its previously stated position that delineation is not complete, and an additional monitoring well is needed.

5. In addition, as mentioned above, the possibility of vertical contaminant migration has not been explored, and still remains to be addressed. The floating behavior of separate phase LNAPL, which is cited as the rationale for limiting the investigation to delineate shallow ground water only, does not apply to dissolved phase contaminants as these tend to move with ground water flow. Furthermore, although one well point has shown an upward gradient, it in no way precludes the possibility that contaminants are present at greater depths. Nor does it prove that an upward vertical gradient persists most of the time. EPA restates its position that the question of a vertical distribution of contaminants must be investigated with a downgradient well.

As discussed during the July 31, 2000 conference call, a minimum of one monitoring well must be installed north of the sewer line. In accordance with the September 26, 1986 Administrative Consent Order, paragraphs 18 and 19, a work plan must be submitted within sixty (60) days from the receipt of this letter addressing the above

comments, including a map showing the proposed location of this additional monitoring well.

Please contact me at (609) 633-7261 if you have any questions.

Sincerely,

Gwen B. Zervas

Gwen B. Zervas, P.E.
Case Manager
Bureau of Case Management

C: Stephen Cipot, EPA
Nicholas Clevett, RMT
George Blyskun, BGWPA
John Prendergast, BEERA